

ABSTRACT

There is disclosed an ink jet printhead which comprises a plurality of nozzles 3 and a bubble forming chamber 7 corresponding to each nozzle respectively. At least one heater element 10 suspended in each bubble forming chamber 7 to heat a bubble forming liquid 11 to a temperature above its boiling point to form a gas bubble 12 therein. The generation of the bubble 12 causes the ejection of a drop 16 of an ejectable liquid (such as ink) through an ejection aperture 5 in each nozzle 3, to effect printing. The heater element is configured such that the strain of thermal expansion is not relieved by bending about its thinnest cross sectional dimension. The heater elements are formed by depositing a thin strip of heater material, usually less than 1 micron thick. The strip is typically more than 2 microns wide and therefore the bending resistance out of the plane of lamination is generally much weaker than the bending resistance in any lateral directions. Repeated bending of the element can lead to oxidation and embrittlement, especially at sharp corners. This, in turn, leads to cracking and ultimately failure. Heater elements according to this invention are configured so that the thermal expansion is accommodated within the plane of lamination and without buckling.